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PATENT APPLICATION
Attorney Docket: 10980239-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS

Applicant:	Sheats, *et al.*
Serial No.:	09/098,190
Filed:	6/16/98
For:	Active Matrix Addressed Polymer LED Display
Group Art Unit:	2673
Examiner:	Jeff Piziali

REPLY BRIEF FOR APPELLANT

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

Appellant provides the following Reply Brief in response to the Examiner's Answer filed 5/16/01 in which the Examiner provides certain new arguments and mis-characterizations of the teachings of some of the cited references.

1. Rejection of Claim 3 under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Gu.

The Examiner argues that Jones teaches a separate OLED array because the organic light emitting material is separate from the thin film transistor array and because Jones "is not opposed to the pending claim language". First, the fact that the light emitting material is separate from the transistors does not make the OLED array separate from the transistor array. Jones teaches an OLED array that is part of the transistor array. The various layers of the OLED array are deposited directly on the transistor array one layer at a time and patterned accordingly. At each stage of construction, the OLED layers are attached to and part of the transistor array. Jones does not teach an OLED array that is separate from the transistor array at any stage in the construction.

Second, the fact that a reference does not teach against a claim limitation does not prove that it teaches the limitation. If this were the law, most of the patents issued today would be rejected. The Examiner has the burden of showing the teaching in the reference, not the burden of showing that the reference does not teach against the claimed invention.

The Examiner now admits that his original suggestion for combining the teachings of the references was flawed and attempts to overcome that flaw by claiming merely that Gu's flexible OLED array would provide use as a light weight display device and even though it would be no lighter than that of the Jones reference, one would be led to combine the teachings to provide a light weight device. There are an almost infinite number of substitutions and combinations that can be made. Absent some improvement, one has no motivation to select one over the other. The Examiner has not pointed to any evidence in the art that would lead one to select the combination selected by the Examiner absent the present application as a guide. To sustain a rejection under 35 U.S.C. 103, there must be evidence that a skilled artisan, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. Ecolochem Inc. v. Southern California Edison Co., 56 USPQ2d, 1065, 1069, CAFC, September 7, 2000.

The Examiner states that the ability to bond an OLED array as taught in Gu to the transistor substrate of Jones is irrelevant, because Claim 3 does not concern itself with such fabrication specifics. Appellant disagrees. If one of ordinary skill in the art cannot make the device suggested by combining the references, then the combination does not render the claim in question obvious. Where the claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis under section 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success... Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. *In re Vaeck*, 20 USPQ2d 1438, 1442(CAFC 1991).

2. Rejection of Claim 8 under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Bulovic and Haskal

The Examiner now argues that Bulovic's inverted OLEDs are grown on a potentially flexible substrate and deposited directly on top of an array of driving transistors. The Examiner cites Column 2, lines 6-8 and Column 2, lines 12-15 of Bulovic in support of this contention. From these two propositions, the Examiner now argues that Bulovic's array of OLEDs have sufficient flexure to allow each OLED to be connected to a corresponding one of the driving transistors when the array of OLEDs is pressed against the array of driving transistors.

First, the Examiner mis-represents the teachings of the cited sections of Bulovic. In the first passage, Bulovic teaches that OLEDs can be fabricated on flexible substrates. The manner in which these arrays are driven is not discussed.

In the second passage, Bulovic refers to depositing OLEDs directly on a silicon integrated circuit substrate. This substrate is certainly not flexible. In addition, the cited passages do not teach making an OLED on a substrate and pressing it against the array of driving transistors as claimed by the Examiner. With respect to the potentially flexible substrate, the mere fact that a certain thing may result from a given set of circumstances is not sufficient to sustain a rejection for anticipation, and hence, is not sufficient to prove that a limitation of a claim is taught in the reference. *Ex parte Skinner*, 2 USPQ2d 1788, 1789 (BdPatApp&Int 1986).

The Examiner also mis-represents the teachings of Haskal. The Examiner stated that Haskal discloses a flexible sheet comprising a material impermeable to water and oxygen (Column 3, lines 19-22). The cited passage teaches a rigid material that is clear and impermeable to water and oxygen, i.e., glass or quartz. The cited passage also teaches using PET and polyvinyl acetate. As noted in the specification of the present application, PET is not impermeable to water and oxygen. The degree of permeability of the polyvinyl acetate discussed in Haskal is not known. Haskel teaches a protective covering for the device that prevents oxygen and water from entering the device; however, that covering is not the substrate on which the device is constructed, and furthermore, the covering in question is not

transparent, since it consists of a metallic layer that reflects light out of the clear bottom substrate. It should be noted further that all of the examples taught in Haskal utilize rigid substrates which are impermeable to water and oxygen.

The Examiner maintains that the present application teaches using PET as the substrate. However, The Examiner fails to note that the substrate of the present invention is PET that has been sealed with a specific sealer. The cited passage refers to constructing a substrate from PET, not of PET alone as taught in the reference. As noted in the specification of the present invention, PET itself is not suitable for OLED arrays. The Examiner's argument is equivalent to arguing that stainless steel is taught by reference that teaches iron, since both compositions are made from iron.

The Examiner goes on to list a number of other arguments for why it would be desirable to use a PET substrate for an OLED. These include providing break resistance, inexpensive cost of manufacturing, etc. As noted in the specification of the present invention, PET substrates without further layers to prevent water and oxygen from passing through cannot be used for a practical OLED and do not satisfy the impermeability limitations of the claims under appeal. The Examiner artfully avoids this problem with his argument by focusing on the fact that the prior art teaches devices that are constructed on PET. These devices have never had commercial success because of the short life of the devices. A lifetime that is cut short by water and oxygen passing through the PET. The fact that PET has desirable features does not change that fact. The fact the present invention teaches that one can construct a substrate satisfying the limitations of the claims with PET as one component also does not change this fact. The issue is not whether the prior art teaches PET as a substrate, but rather whether the prior art teaches PET that has been treated to become impermeable to oxygen and water.

Furthermore, the issue is not whether the Examiner can make up some motivation in hindsight for selectively combining the teachings of the references. To sustain a rejection under 35 U.S.C. 103, there must be evidence that a skilled artisan, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. Ecolochem Inc. v. Southern California Edison Co., 56 USPQ2d, 1065, 1069, CAFC, September 7, 2000.

I hereby certify that this paper (along with any others attached hereto) is being deposited with the United States Postal Service as first class mail with sufficient postage on the date signed below in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Respectfully Submitted,

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